

REMARKS

Claims 1-24 were examined and reported in the Office Action. Claims 1-24 are rejected. Claims 1-9, 11, 17 and 23 are canceled. Claims 10, 12-16, 18-22 and 24 are amended. Claims 10, 12-16, 18-22 and 24 remain.

Applicant requests reconsideration of the application in view of the following remarks.

I. 35 U.S.C. §101

It is asserted in the Office Action that claims 1-9 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Applicant has canceled claims 1-9. Therefore, the 35 U.S.C. §101 rejection is moot.

II. 35 U.S.C. §112

A. It is asserted in the Office Action that claims 1-7, 9-22 and 24 are rejected under 35 U.S.C. §112, first paragraph, as based on a disclosure which is not enabling. Applicant has canceled claims 1-7 and 9, and amended claims 10, 13, 16 and 21 to overcome the 35 U.S.C. §112, first paragraph rejections. In particular, and as suggested in the Office Action, Applicant has added the limitations: to claim 10 of "to determine if the task associated with the one instance has been undertaken by another thread by a first thread that when executed to compare a first private value of the first thread and a second private value of the first thread," to claim 13 of "to determine if the task has been undertaken by another thread by a first thread, which when executed to compare a first private value of the first thread and a second private value of the first thread," to claim 16 of "to determine if the task of the one instance has been undertaken by another thread by a first thread comparing a first private value of the first thread and a second private value of the first thread, upon determining the task has not been undertaken by the other thread, undertaking the task and indicating with the shared value the undertaking of the task," and to claim 21 of "determine if the task of the one instance has been undertaken by a second thread by the first thread comparing a first private value of the first thread and a second private value of the first thread."

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Accordingly, withdrawal of the 35 U.S.C. §112, first paragraph rejection for claims 10, 13, 16 and 21, and their associated dependent claims, namely 12, 14-15, 18-20, and 22 and 24, respectively, is respectfully requested.

B. It is asserted in the Office Action that claims 1-7, 9-22 and 24 are rejected under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements.

Applicant has canceled claims 1-7 and 9 and amended claims 10, 13, 16 and 21 to overcome the 35 U.S.C. §112, second paragraph rejections. In particular, and as suggested in the Office Action, Applicant has added the limitations: to claim 10 of "to determine if the task associated with the one instance has been undertaken by another thread by a first thread that when executed to compare a first private value of the first thread and a second private value of the first thread," to claim 13 of "to determine if the task has been undertaken by another thread by a first thread, which when executed to compare a first private value of the first thread and a second private value of the first thread," to claim 16 of "to determine if the task of the one instance has been undertaken by another thread by a first thread comparing a first private value of the first thread and a second private value of the first thread, upon determining the task has not been undertaken by the other thread, undertaking the task and indicating with the shared value the undertaking of the task," and to claim 21 of "determine if the task of the one instance has been undertaken by a second thread by the first thread comparing a first private value of the first thread and a second private value of the first thread."

Accordingly, withdrawal of the 35 U.S.C. §112, second paragraph rejection for claims 10, 13, 16 and 21, and their associated dependent claims, namely 12, 14-15, 18-20, and 22 and 24, respectively, is respectfully requested. is respectfully requested.

III. 35 U.S.C. § 103

A. It is asserted in the Office Action that Claims 1-12 and 16-24 are rejected in the Office Action under 35 U.S.C. § 103(a), as being unpatentable over "Synchronization Constructs for Parallel Fortran" by IBM ("IBM") in view of Applicant's Admitted Prior

Art ("AAPA"). While claims 1-9, 17 and 23 are canceled, Applicant respectfully traverses the aforementioned rejection of claims 10, 12, 16, 18-22 and 24 for the following reasons.

According to MPEP §2142

[t]o establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. (*In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

Further, according to MPEP §2143.03, "[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (*In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." "All words in a claim must be considered in judging the patentability of that claim against the prior art." (*In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970), emphasis added.)

Applicant's amended claim 10 contains the limitations of "...to determine if the task associated with the one instance has been undertaken by another thread by a first thread that when executed to compare a first private value of the first thread and a second private value of the first thread..."

Applicant's amended claim 16 contains the limitations of "... to determine if the task of the one instance has been undertaken by another thread by a first thread comparing a first private value of the first thread and a second private value of the first thread, upon determining the task has not been undertaken by the other thread, undertaking the task and indicating with the shared value the undertaking of the task..."

Applicant's amended claim 21 contains the limitations of "... determine if the task of the one instance has been undertaken by a second thread by the first thread comparing a first private value of the first thread and a second private value of the first thread..."

IBM discloses synchronization techniques for parallel FORTRAN. IBM, however, does not teach, disclose or suggest the limitations of Applicant's claim 10 of "...to determine if the task associated with the one instance has been undertaken by another thread by a first thread that when executed to compare a first private value of the first thread and a second private value of the first thread..." the limitations in claim 16 of "... to determine if the task of the one instance has been undertaken by another thread by a first thread comparing a first private value of the first thread and a second private value of the first thread, upon determining the task has not been undertaken by the other thread, undertaking the task and indicating with the shared value the undertaking of the task..." or the limitations in claim 21 of "... determine if the task of the one instance has been undertaken by a second thread by the first thread comparing a first private value of the first thread and a second private value of the first thread..."

AAPA discloses OpenMP. As asserted in Applicant's Background, OpenMP does not detail work sharing constructs. Applicant notes in the Background that with implementation of the SINGLE construct, the first thread to arrive creates an object and each thread must go through a lock acquisition phase and only the last thread to arrive clears the object. AAPA, however, does not teach, disclose or suggest the limitations of Applicant's claim 10 of "...to determine if the task associated with the one instance has been undertaken by another thread by a first thread that when executed to compare a first private value of the first thread and a second private value of the first thread..." the limitations in claim 16 of "... to determine if the task of the one instance has been undertaken by another thread by a first thread comparing a first private value of the first thread and a second private value of the first thread, upon determining the task has not been undertaken by the other thread, undertaking the task and indicating with the shared value the undertaking of the task..." or the limitations in claim 21 of "... determine if the task of the one instance has been undertaken by a second thread by the

first thread comparing a first private value of the first thread and a second private value of the first thread..."

Neither IBM, AAPA, nor the combination of the two, teach, disclose or suggest the limitations contained in Applicant's amended claims 10, 16 and 21, as listed above. Thus, Applicant's amended claims 10, 16 and 21 are not obvious over IBM in view of AAPA since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claims that directly or indirectly depend from amended claims 10, 16 and 21, namely claims 12, 18-20, and 22 and 24, respectively, would also not be obvious over IBM in view of AAPA for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejections for Claims 10, 16 and 21, and their respective dependent claims of 12, 18-20, and 22 and 24, respectively, are respectfully requested.

B. It is asserted in the Office Action that Claims 13-15 are rejected in the Office Action under 35 U.S.C. § 103(a), as being unpatentable over "Synchronization Constructs for Parallel Fortran" by IBM in view of ~~AAPA~~ and AAPA and "Compilers, Principles, Techniques, and Tools by AHO et al. ("AHO"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

Applicant's amended claim 13 contains the limitations of "...to determine if the task has been undertaken by another thread by a first thread, which when executed to compare a first private value of the first thread and a second private value of the first thread..." These limitations are similar to the limitations contains in amended claim 10, which were addressed above regarding IBM and AAPA.

AHO is relied upon for disclosing a compiler that sends code to a linker. The compiler creates assembly code that is translated into machine code. AHO, however, does not teach, disclose or suggest "to determine if the task has been undertaken by another thread by a first thread, which when executed to compare a first private value of the first thread and a second private value of the first thread..."

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Neither IBM, AAPA, AHO, nor the combination of the three, teach, disclose or suggest the limitations contained in Applicant's amended claim 13, as listed above. Thus, Applicant's amended claim 13 is not obvious over IBM in view of AAPA and AHO since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claims that directly or indirectly depend from amended claim 13, namely claims 14-15, would also not be obvious over IBM in view of AAPA and AHO for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejections for Claims 13, and its dependent claims 14-15 are respectfully requested.

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CONCLUSION

In view of the foregoing, it is submitted that claims 10, 12-16, 18-22 and 24 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

PETITION FOR EXTENSION OF TIME

Per 37 C.F.R. 1.136(a) and in connection with the Office Action mailed on March 29, 2005, Applicant respectfully petitions the Commissioner for a one (1) month extension of time, extending the period for response to July 29, 2005. The Commissioner is hereby authorized to charge payment to Deposit Account No. 02-2666 in the amount of \$120.00 to cover the petition filing fee for a 37 C.F.R. 1.17(a)(1) large entity. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

Dated: July 29, 2005

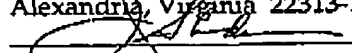
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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this paper is being facsimile transmitted to the Patent and Trademark Office, Commissioner for Patents, Post Office Box 1450, Alexandria, Virginia 22313-1450, on July 29, 2005.


Jean Svoboda